

VERSION WITH MARKINGS TO SHOW CHANGES MADE**In the claims:**

Claims 3 and 6 have been canceled.

Claims 1 and 20 have been amended as follows:

1. An integrated circuit for providing drive signals to a piezo element of a milli-actuator device in a mass data storage device, comprising:

 a first circuit for receiving head position control signals and for providing a charging current to a sense capacitor in response thereto;

 wherein said first circuit is powered by a voltage supply that is referenced measured with respect to a substrate potential; and

 a second circuit for mirroring a current in said first circuit at a predetermined mirror ratio to provide drive currents to said piezo element.

20. The integrated circuit of claim 15 further comprising:

 a first switch connected to selectively disable said first current mirror portion

 a second switch connected to selectively provide a feedback path from said second current mirror portion to an input of said second current mirror portion

 wherein when said first and second switches are selectively operated, said integrated circuit operate in a voltage mode.